Results. The response was evaluated depending on the presence of biochemical failure (PSA level higher than nadir plus 2) after a follow-up between 50 and 78 months. 14 patients (8.9%) presented biochemical failure during that period, 11 patients with brachytherapy only and 3 patients with combined treatment. In the analysis of D90/30 in failure cases: 7 patients above 95%, 6 patients below 95% and is not on a patient. Biopsy was made in 6 patients with biochemical failure, five of them being negative.
Conclusions. Our results correlate with the general pattern of biochemical failure between 5 and 12% depending on the characteristics of the stage. Analysis-D90/30 in failure cases: 7 are above 95%, 6 below and 1 has no data.

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Biochemical control of prostate cancer treated with brachytherapy (125I)

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Introduction. Recently, Brachytherapy for prostate cancer (PC) has been considered first line treatment in selected patients with localized PC.
Objectives. Analysis of characteristics and biochemical control of patients treated with 125I brachytherapy since its introduction in our department.
Methods. Between July 2007 and January 2013, 144 implants have been performed. One-hundred patients were analyzed retrospectively (minimum follow-up: 1 year) by age, neoadjuvant hormonal therapy, PSA, Gleason score, T stage, risk group, number and time to nadir and biochemical control (Phoenix criteria). We performed a descriptive study calculating mean and standard deviation for quantitative variables and absolute frequencies and percentages for qualitative variables. We performed a survival analysis (Kaplan–Meier method) to calculate biochemical control.
Results. The mean age was 64.6 ± 6.6 years (49–75). 17% had started androgen deprivation therapy. Mean PSA was 5.8 ± 1.7 ng/ml (2.4–9.7). Gleason score 6 was most frequent (93%), followed by 5 (4%) and 7 (2%). Distribution by stages: T1c (96%), followed T2a (4%). Risk group: low (98%), intermediate (2%). Mean nadir was 0.74 ± 0.93 ng/ml (0.0 to 5.8) and median time to reach it was 22.2 ± 15.3 months (3.7–57). Six patients had biochemical recurrence. With post-implant dosimetry no relation was found between the dose received by 90% of the target volume (D90) and biochemical recurrence. With a median follow up of 36.4 months (12–64), biochemical control at 2 and 4 years was 97.3% and 86.2%, respectively.
Conclusions. 125I brachytherapy as radical treatment in selected patients with localized PC achieves optimal results in terms of biochemical control. These results agree with the literature.

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Biochemical recurrence-free survival after prostate cancer

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We present the results of patients with localized prostate cancer treatment with radical radiotherapy remains our objective to analyze the biochemical recurrence-free survival. Between 2004 and 2007, 81 patients with prostate adenocarcinoma (28.4% intermediate risk and high risk, 67.9%) were treated with external beam radiation dose of 78 Gy/2 Gy per fraction, all of them were followed up minimum of five years. Hormonal therapy was associated in 87.7% of patients. All patients were diagnosed with prostate cancer and were classified according to the Gleason score, tumor size an initial PSA. Mean age 65.39 years (range 47–75), median PSA at diagnosis 25.6 range (4–210), T1 (3.7), T2a-b (42%) T2c (34.5%), T3 (12.3%), T2 (2.5%), Gleason minor or equal 6 (49.4%), Gleason 7 (19.8%), Gleason major of 7 (28.4%), 2.5% unknown. The follow-up assessment after treatment was performed at intervals of 3–6 months, the minimum followup was 12 months and median of 61 months with a range between 10 and 99 months. All events were determined from the start of radiotherapy until relapse. The results of biochemical recurrence were 12.3% and 86.4% if not there is biochemical recurrence, with a media time to failure of 56.16 moths and a failure-free survival (SLFB) range of 19–95 months. Average 77.58 months and median 64.19 months. Tolerance of radiotherapy was acceptable. We conclude that radiotherapy is a safe and effective treatment for patients with localized prostate cancer.

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Evaluating the effectiveness of MRI in the initial therapeutic strategy in prostate cancer

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Evaluation of local disease extend is typically accomplished with the combination of digital rectal examination (DRE) and transrectal ultrasound at the time of biopsy. Magnetic resonance imaging (MRI) is widely available in our department, and therefore we usually apply it in the initial evaluation of men with newly diagnosed prostate cancer. The aim of this descriptive study is to

evaluate all prostate cancer patients who were undergone external radical external beam radiotherapy (EBRT) in our department and to know how many of them have a MRI. Likewise, to determine if there is a therapeutic change in the initial strategy. Between January 2009 and November 2012 were included 198 patients with newly diagnosed prostate who received EBRT. Patients with a previous prostatectomy and palliative patients were excluded. Age average 69 years old (50–83), originally we arrange by risk of recurrence according DRE, PSA and Gleason, we obtained 27.8% Low Risk, 41.4% Intermediate Risk and 30.8% High Risk. 80% of whole of them received androgen deprivation therapy (ADT), so 10% received ADT without selection criteria by urologist. 114 patients (57%) had a MRI, 31 of them there was a therapeutic change, almost in 30% of the patients with MRI. Of them, 10 patients could be changed at total length of ADT or planning tumor volumes (PTV) and 21 patients this therapeutic change consisted of both, planning tumor volumes (PTV) and total length of ADT. 57 patients were found with a different clinical stage. In our experience MRI is additional tool to staging prostate cancer, overall we think is useful to determine extracapsular invasion, when Gleason $\geq$8 or Gleason 7 (4 + 3), besides of that cases which DRE don't provide a clear information.

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High risk prostate cancer: RTP is a requirement?

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Introduction. The role of prophylactic pelvic irradiation (RTP) in patients with high-risk carcinoma remains uncertain, some groups are inclined to the use of RTP in which the risk of lymph node is greater than 15%, others recommend its use in controlled studies it is necessary to consider longer follow standard treatment.
Objectives. Present the results in terms of biochemical progression-free survival (SLFB) in patients treated with RTE formed (78 Gy) on prostate + seminal vesicles only. Analyze the descriptive characteristics of the data in our series.
Materials and methods. They retrospectively analyzed a series of 55 patients collected from 2004 to 2007 diagnosed with localized prostate adenocarcinoma at high risk who received radical RT (78 Gy/2 Gy $f(x)$) on prostate + seminal vesicles with a minimum follow-up of 5 years. Data were analyzed with SPSS v15.
Result. The age range was 49-85 years (mean 66.55 and median 67.06), 3.6%, 70.84%, 18.2% and 1.8% were T1, T2, T3 and T4. As to Gleason, 1.8%, 30.9%, 25.5%, 29.1% and 12.7% were Gleason 4, 6, 7, 8 and 9 respectively. The BHC had 94.5%. Of all patients, 14.5% had biochemical recurrence, SLFB being 63% at 77 months.
Conclusions. With a 77-month follow-up, we have obtained a SLFB 63% for patients with localized prostate adenocarcinoma treated with high-risk prostate + RTE formed on seminal vesicles, the RTP currently remains controversial and it would be necessary comparative studies two treatment modalities with longer follow-up.

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Initial experience with HDR brachytherapy in high risk prostate cancer

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In the present study, we describe twenty patients with clinically localised prostate cancer which were treated with external irradiation and high dose rate brachytherapy (BT) at the Oncology Radiotherapy Department of HCU Lozano Blesa, Zaragoza, between June 2010 and May 2012. Eighteen were ranked like high risk, only two of them were intermediate risk. Using CT based treatment planning. Twelve cases were treated with 46 Gy to the whole pelvis and the prostate and vesicles were treated up with 56 Gy by conformal external beams, eight patients received 56 Gy to the prostate and vesicles. BT was given in the first two weeks after of external irradiation were finished. Every patient was under total androgen blockade. The interstitial BT was performed in spinal anaesthesia. Steel needles were implanted into the prostate using transrectal US guidance. Treatment planning was based on transversal ultrasound images. The median number of inserted needles was 15 (range: 8–19). The prescribed dose to the surface of the prostate was 9.50 Gy. PSA levels and acute side effects were monitored and documented regularly. Perioperative side effects were two cases of haematuria one of them caused by avulsion of catheter and once urinary acute retention. Currently 85% of our patients are asymptomatic. We have only one case of relapse biochemical. Incidence of perioperative and acute side effects were comparable to data known from the literature. Appropriate technical background and well organised team work are needed to ensure the good quality of the treatment.

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